

WHAT IS CLAIMED IS:

1. A microscope for observing a sample, comprising:

an optical system comprising an objective lens to which light from the sample is incident, and adapted to guide an image of the sample;

a solid immersion lens arranged movable between an insertion position including an optical axis from the sample to the objective lens, and a standby position off the optical axis;

solid immersion lens driving means for driving the solid immersion lens between the insertion position and the standby position and for adjusting the insertion position of the solid immersion lens relative to the objective lens; and

instructing means for issuing an instruction to adjust the insertion position of the solid immersion lens, with reference to an image containing reflected light from the solid immersion lens.

2. The microscope according to Claim 1, wherein the instructing means issues the instruction to adjust the insertion position of the solid immersion lens so that a position of a center of gravity of a reflected light image coincides with an observation location in the sample, with reference to the image containing the reflected light from the solid immersion lens.

3. The microscope according to Claim 1, wherein the instructing means issues an instruction to adjust a distance

between the objective lens and the sample, along with the adjustment of the insertion position of the solid immersion lens.

4. A sample observation method of observing a sample, comprising:

a first image acquisition step of acquiring an observation image of a sample through an optical system comprising an objective lens to which light from the sample is incident;

an observation setting step of setting an observation location in the sample from the observation image;

a lens insertion step of moving a solid immersion lens from a standby position off an optical axis from the sample to the objective lens, to an insertion position including the optical axis;

a position adjustment step of acquiring an image containing reflected light from the solid immersion lens and adjusting the insertion position of the solid immersion lens relative to the objective lens, with reference to the image;

and

a second image acquisition step of acquiring an observation image of the sample enlarged by the solid immersion lens, through the solid immersion lens and the optical system.

5. The sample observation method according to Claim 4, wherein the position adjustment step is to adjust the

insertion position of the solid immersion lens so that a position of a center of gravity of a reflected light image coincides with the observation location in the sample, with reference to the image containing the reflected light from the solid immersion lens.

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6. The sample observation method according to Claim 4, comprising a distance adjustment step of adjusting a distance between the objective lens and the sample.